

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

- 5 1 (currently amended): A method for processing an image to increase sharpness of the image without changing hue characteristics, the method comprising:
- (a) performing a transformation process to transform an original image signal into CIE XYZ colorimetric channels;
- (b) forming a luminance channel Y;
- 10 (c) applying a filter on the luminance channel Y to obtain a processed luminance channel Y';
- (d) computing processed colorimetric channels X' and Z' based on the processed luminance channel Y', wherein a relationship between the processed colorimetric channel X' and the colorimetric channel X satisfies the
- 15 equation $X'=(X/Y)*Y'$; and
- (e) performing an inverse transformation process to transform the processed colorimetric channels X'Y'Z' into a processed image signal.
- 2 2 (original): The method of claim 1 wherein the filter applied in step (c) is an unsharp
- 20 masking (USM) filter.
- 3 3 (original): The method of claim 1 wherein the filter applied in step (c) is a sharpness filter.
- 25 4 (original): The method of claim 1 wherein in step (a) the transformation process comprises transforming RGB values of the original image signal into CIE XYZ colorimetric channels.
- 5 5 (original): The method of claim 4 wherein in step (e) the inverse transformation
- 30 process comprises transforming the processed colorimetric channels X'Y'Z' into

R'G'B' values of the processed image signal.

6 (original): The method of claim 1 wherein in step (a) the transformation process
comprises transforming CMYK values of the original image signal into CIE
5 XYZ colorimetric channels.

7 (original): The method of claim 6 wherein in step (e) the inverse transformation
process comprises transforming the processed colorimetric channels X'Y'Z' into
C'M'Y'K' values of the processed image signal.

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8 (cancelled).

9 (original): The method of claim 1 wherein in step (d) a relationship between the
processed colorimetric channel Z' and the colorimetric channel Z satisfies the
15 equation $Z'=(Z/Y)*Y'$.

10 (original): An image processing apparatus for implementing the method of claim 1.

11 (new): A method for processing an image to increase sharpness of the image
20 without changing hue characteristics, the method comprising:

(a) performing a transformation process to transform an original image signal
into CIE XYZ colorimetric channels;

(b) forming a luminance channel Y;

(c) applying a filter on the luminance channel Y to obtain a processed luminance
25 channel Y';

(d) computing processed colorimetric channels X' and Z' based on the processed
luminance channel Y', wherein a relationship between the processed
colorimetric channel Z' and the colorimetric channel Z satisfies the equation
 $Z'=(Z/Y)*Y'$; and

30 (e) performing an inverse transformation process to transform the processed

colorimetric channels X'Y'Z' into a processed image signal.

12 (new): The method of claim 11 wherein the filter applied in step (c) is an unsharp masking (USM) filter.

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13 (new): The method of claim 11 wherein the filter applied in step (c) is a sharpness filter.

14 (new): The method of claim 11 wherein in step (a) the transformation process
10 comprises transforming RGB values of the original image signal into CIE XYZ colorimetric channels.

15 (new): The method of claim 14 wherein in step (e) the inverse transformation
process comprises transforming the processed colorimetric channels X'Y'Z' into
15 R'G'B' values of the processed image signal.

16 (new): The method of claim 11 wherein in step (a) the transformation process
comprises transforming CMYK values of the original image signal into CIE
XYZ colorimetric channels.

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17 (new): The method of claim 16 wherein in step (e) the inverse transformation
process comprises transforming the processed colorimetric channels X'Y'Z' into
C'M'Y'K' values of the processed image signal.

25 18 (new): An image processing apparatus for implementing the method of claim 11.